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**STATE OF WISCONSIN  
CLASSIFICATION SPECIFICATION**

**ENGINEERING TECHNICIAN - TRANSPORTATION  
CLASSIFICATION SERIES**

**I. INTRODUCTION**

A. Purpose of This Classification Specification

This classification specification is the basic authority under ER 2.04, Wis. Adm. Code, for making classification decisions relative to present and future engineering technician positions located at the Department of Transportation and the Department of Civil and Environmental Engineering at the University of Wisconsin (UW)-Madison. Positions allocated to this series perform sub-technical to technical engineering work and perform duties ranging from relatively simple routine and repetitive tasks to responsible and complex technical work. This classification specification is not intended to identify every duty that may be assigned to positions but is intended to serve as a framework for classification decision-making in this occupational area. Positions allocated to this series are considered to be non-exempt from the overtime provisions of the Fair Labor Standards Act.

Classification decisions must be based on the “best fit” of the duties within the existing classification structure. The “best fit” is determined by the majority (i.e., more than 50%) of the work assigned to and performed by the position when compared to the classification concepts and definitions of this specification or through other methods of position analysis. Position analysis defines the nature and character of the work through the use of any or all of the following: definition statements; listing of areas of specialization; representative examples of work performed; allocation patterns of representative positions; job evaluation guide charts, standards, or factors; statements of inclusion and exclusion; license or certification requirements; and other such information necessary to facilitate the assignment of positions to the appropriate classification.

B. Inclusions

This series encompasses positions located at the Department of Transportation and the UW-Madison Civil and Environmental Engineering Department that perform technical work in the field of architecture/engineering in the planning, design, construction, operation, and maintenance of transportation facilities. These facilities include, but are not limited to state highways, bridges, railroads and airports.

C. Exclusions

Excluded from this series are the following types of positions:

1. Positions which perform professional work in the field of architecture/engineering and meet the statutory definition of professional employee, as defined in s. 111.81(15), Wis. Stats., as administered and interpreted by the Wisconsin Employment Relations Commission.

2. Positions that require a Bachelor of Science degree in engineering or equivalent and require a professional engineer responsibility and are more appropriately classified as Civil Engineer.
  3. Office and administrative positions in which the technical aspects of the job are well formulated, detailed, and easily conveyed to and applied by a new employee with no previous sub-professional engineering training or experience.
  4. Technical program support assistants more appropriately classified by other class series, such as Communication Technician, Electronic Technician, Instrument Maker, Maintenance Mechanic, Craftworker, etc., whose work involves complex and specialized electronic, electrical, mechanical, communication, or craft functions involving the design, installation, systems analysis, repair, calibration, testing, modification, construction, or maintenance or operation of equipment, machines, control systems, instruments, or other comparable devices for a majority of the time. These aforementioned positions do not provide direct technical assistance to professional architectural or engineering employees, activities, and programs.
  5. Positions that meet the statutory definitions of supervisor or management, as defined in s. 111.81(19) and (13), Wis. Stats., and perform sub-professional, technical, or professional engineering work.
  6. All other positions that are more appropriately identified by other classification specifications.
- D. Entrance Into and Progression Through This Series
- Employees enter this classification series by competition for entry/objective level positions. Employees with exceptional qualifications, such as previous experience performing similar work, may enter this series at the higher classification levels by competitive examination or lateral transfer. Progression to positions identified as leadworker or crew chief positions will occur through competition. Progression to other positions may occur through reclassification, as defined in Chapter 370 of the Wisconsin Human Resources Handbook.
- E. How to Use This Classification Specification

This classification specification is used to classify sub-technical to technical positions, as described under Section I.B of this classification specification. In most instances, positions included in this series will be identified clearly by one of the classification definitions that follow in Section II, Definitions. However, a position may evolve or be created which is not specifically defined by one of the classification definitions. Positions may also perform a variety of work found under more than one allocation.

## II. DEFINITIONS

### ENGINEERING TECHNICIAN TRANSPORTATION

This is an entry level and objective level classification within a technical engineering function. At the entry level positions work under close to limited supervision and perform routine technical engineering related work. Objective level positions work under general supervision.

Examples of duties performed at the Engineering Technician Transportation level are listed below. Other examples of duties are provided under the higher levels of Engineering Technicians. For these positions, the Engineering Technician Transportation level is considered to be entry.

**Materials Technician:** This is entry-level work performed under close supervision. These positions may perform any combination of the following: sampling, testing and computing of test results on construction material tests; repairing, maintaining and distributing engineering and/or testing supplies and equipment; assisting construction project manager or project leader in construction staking, inspection and quantity measurement; and/or assisting design engineer or project leader in development of quantities and details for the project plan. Projects and assignments are less complex in nature than found at the higher levels.

**Planning Technician:** This is entry-level work performed under close supervision. These positions assist in compiling and submitting local road mileage certification and inventory data, road needs studies, pavement surface distress data, corporate limit descriptions, and plat map updates; may be involved in the inventory of the State Trunk Network; review and update deficiency files or the Highway Performance Monitoring System (HPMS) for data collection; and complete data input and mapping updates. Projects and assignments are less complex in nature than found at the higher levels.

**Project Development Technician:** This is entry-level work performed under close to limited supervision. These positions perform construction-related and/or design-related activities: assist the construction project leader or construction project manager in construction staking, inspection and quantity measurement; and assist the design project leader or the design project manager in the development of quantities and details for the project plan. Projects and assignments are less complex in nature than found at the higher levels.

**Traffic/Data/Inventory Technician:** This is entry-level work performed under close supervision. These positions coordinate and gather field traffic data necessary to complete the annual statewide traffic data programs; program and repair portable recorders; download data from recorders into system data files; perform some gap analysis, vehicle classification, in motion weighting, intersection-turning movement counts, supplemental photography and other evolving traffic data collection processes. Projects and assignments are less complex in nature than found at the higher levels.

**Traffic Signal Technician:** This is entry-level work performed under close to limited supervision. These positions assist electricians in the installation and maintenance of electric traffic control equipment such as traffic control signals and systems, flashing beacons, temporary signals on bridges, highway lighting, traffic counting equipment, rest area electrical equipment, and shop equipment. Positions operate auger trucks, trenchers, concrete saws, air hammers, small hand tools and other related equipment. Positions may perform minor repairs on equipment.

**Utilities/Signs/Permits and Outdoor Advertising Technician:** This is entry level work under close supervision where employees perform individual parts of the processes related to utilities, signs, permits, or outdoor advertising. Positions perform a combination of duties by assisting regional coordinators and learning individual segments of the process of utility coordination and/or permit review and approval.

## **ENGINEERING TECHNICIAN TRANSPORTATION JOURNEY**

The positions in this class perform duties within a technical engineering function and are: entry level, working under close supervision; developmental level, working under limited to general supervision; or objective level, working under general supervision. This level requires more technical knowledge for

successful performance of the tasks assigned to the position and the employee performs the tasks with greater independence than the previous level.

Examples of duties performed at the Engineering Technician Transportation - Journey level are listed below. Other examples of duties are provided under the higher levels of Engineering Technicians. For these positions, the Engineering Technician Transportation - Journey level is considered to be developmental level.

**Driller:** This is entry level work performed under close supervision. These positions function on a crew as a technical assistant that conducts soil borings and obtains soil data and samples at sites throughout the entire state. Positions perform sampling of soils/rock and field-testing for bridges, walls, embankments, road cuts or other soil dependent structures. Sampling includes: classifying soils and rock materials; preparing drill logs; and checking for accuracy and completeness. Positions operate large trucks with mounted drill rigs on highways or on off-road sites and/or large trucks pulling fifth wheel trailers or tag-along trailers carrying loads up to 12 tons. Positions operate drills to secure soil or rock samples; install instrumentation; conduct field tests; make repairs; routine maintenance; and preparation of vehicle reports.

**Materials Technician:** This is developmental level work for positions that perform routine testing in a lab or work site working under limited to general supervision. These positions perform sampling, testing and computation of test results of construction materials; repair, maintain, and distribute engineering and/or testing supplies and equipment; monitor contractor's materials, such as, asphalt, concrete, etc.; perform sieve analysis for aggregate gradations; perform air and slump tests of concrete; and measure quantities and quality assurance. Position functions with more independence, performs a wider variety of testing, and works on more complex assignments than at the previous level.

**Planning Technician:** This is developmental level work performed under limited supervision. These positions conduct independent field reviews and follow-up certification of local road systems and assist in compiling and submitting local road mileage certification and inventory data, road needs studies, pavement surface distress data, corporate limit descriptions, and plat map updates. Other duties include inventory of the state trunk network; review and update deficiency files or the highway performance monitoring system for data collection; schedule and conduct inventory work; and complete data input and mapping updates. Projects and assignments are more complex in nature than found at the lower level.

**Project Development Technician:** This is developmental level work performed under limited supervision as an assistant to the project leader or project manager. These positions perform a variety of construction or design related duties: inspection; survey-related work; sample and test materials; assist in the preparation of plans for contract lettings; estimate quantities for contract letting; maintain region design files and assist in assembling plans, specifications and estimates (PS&E) documents; assist in preparing design reports; inspect culvert pipe and sewer installations; inspect pile driving and record data; inspect grading operations; inspect the placement of sub-base and base courses; perform sieve analysis for aggregate gradations; perform air and slump tests of concrete; inspect concrete or asphalt paving operations; check proper alignment and grade; check proper placement of reinforcement and joints; maintain paving diary; and determine final measurements and computations.

**Traffic/Data/Inventory Technician:** This is developmental level work performed under limited supervision. These positions perform a combination of the following duties: coordinate and gather the field traffic data necessary to complete the annual statewide traffic data program; coordinate the activity of traffic data gathering of lower level technicians; maintain the automatic traffic recorders and telemetry stations; prepare accident summaries, including computing accident rates for reports and/or conducts routine traffic studies, such as vehicle speed studies, crash diagrams, traffic counts, vehicle delay studies

and vehicle count summaries, speed zone studies, and oversize vehicle permits; collect all reports for accident damage to highway facilities; provide input for cost analyses of alternative traffic control improvements and/or safety improvement projects; deploy changeable message signs (VMS) in the field for use in conjunction with construction and maintenance projects; perform gap analysis, vehicle classification, in motion weighting, supplemental photography and other evolving traffic data collection processes; and maintain liaison with county and local unit police agencies to provide enforcement branch input to traffic engineering decisions. Projects are increasing in size and complexity from the entry level.

**Traffic Signal Technician:** This is objective level work performed under general supervision. These positions perform all the duties of the traffic signal technician at the entry level and in addition, are able to independently prepare a job site for the electrician. Positions may also inspect contractor installations for compliance with specifications, install temporary overhead lighting, and/or train lower level technicians. Position works with more independence and works on more complex assignments than found at the lower level.

**Utilities/Signs/Permits and Outdoor Advertising Technician:** This is a developmental level position performed under limited supervision. At this level employees perform individual segments of the process of utility coordination and/or permit review and approval. Incumbents have learned technical aspects of the project development process and how these functions (utilities, permitting, signs, outdoor advertising) play a role in the full project.

## **ENGINEERING TECHNICIAN TRANSPORTATION SENIOR**

This is an entry, objective or senior level classification within a technical engineering function. Positions allocated to this level differ from those allocated to lower levels by assignment of different duties, independence of work, and complexity of work. Work is performed under close to limited supervision for entry-level positions and general supervision for objective and senior level positions.

Factors to be considered for determining size and complexity include, but are not limited to: dollar value of project; duration; number of bid items; number of jurisdictions involved; environmental impacts; urban traffic flows; and historical/archeological or political sensitivity. Examples of duties performed at the Engineering Technician Transportation - Senior level are listed below.

**Area/Roadway Maintenance Assistant:** This is entry level work performed under close to limited supervision. These positions coordinate highway maintenance activities and assist the Regional Maintenance Supervisor and/or engineer in charge in the development, analysis, and control of the region state highway maintenance planning, budgeting, reporting, and automation efforts. Positions perform work as described at the ETT Advanced 2 level with less independence and with less complex assignments, learning to handle the full range of county maintenance activities independently.

**Central Laboratory Assistant:** This is entry level work performed under close to limited supervision. These positions direct a portion of the statewide assurance and acceptance testing of materials intended for use on WisDOT construction projects. These positions perform duties identified at the advanced level on smaller less complex projects. Several of the positions in this classification require certification through the Highway Technician Certification Program at UW - Platteville. This is also an objective level for positions that function as a prime tester for a limited variety of materials in the central laboratory performing duties similar to those described in the materials assistant allocation under general supervision.

**Electrical Design Technician:** This is entry level work under close to limited supervision for positions that design traffic signal and intersection plans and assist in the preparation of plans specifications and

estimates for traffic signal projects. In addition, positions perform some combination of duties found at the higher level traffic technician allocations.

**Drilling Field Technician:** This is objective level work performed under general supervision. These positions conduct site reviews prior to drilling; review equipment; determine equipment needs; list access limitations; note utilities present; prepares site reports; review and audit drill logs; coordinate data entry and record keeping; and purchase items for concrete pavement recording activities and geotechnical operations.

**Freeway Operations Assistant:** This is entry level work performed under close to limited supervision for positions performing work identified at the advanced levels for freeway operations specialists. Positions perform less than the full scope of duties identified at the higher levels on less complex traffic situations.

**Loop Installation Technician:** This is objective level work performed under general supervision. Positions are responsible for directing and participating in the installation of electronic director systems and wiring necessary to install or repair continuous data collection stations statewide. Positions train lower level ETT's including LTE's and assign work and coordinate loop installation; perform solar panel installation; prepare all materials and equipment; maintain equipment; schedule repairs and servicing of equipment; train contractors on installing loops and piezo detectors; and assist electronic technicians in bench testing, upgrading of electronic components, and performing circuitry checks. Position serves as the statewide technical expert in loop installation.

**Materials Technician and Laboratory Technician:** This allocation can be either entry or objective level work.

Objective level work is performed under general supervision. These positions inspect asphalt and concrete operations as well as other materials at various individual and commercial sites including plants, fabrication shops, or manufacturers on materials used in bridge and highway construction projects; perform girder inspections; inspect painting of structural steel for bridges; inspect the manufacturing and fabrication of concrete and metal pipe for culvert and sewer construction; inspect paint manufacturers and sample paint used for structural steel; inspect concrete paving and bridge construction operations; provide field testing; and maintain records for all materials incorporated into a construction project. Positions may assist Regional Materials Engineer with project materials review, project records and documents, and serve as a material record coordinator. Positions are differentiated from the lower levels in complexity of assignments and independence of work; **OR**

This is the developmental level working under limited supervision for positions that administer laboratory activities in various materials sampling, testing, and inspection procedures. Positions also document and report test results, maintain inventory of lab testing equipment, and learn to calibrate and maintain equipment.

**Marking and Signing Technician:** This is entry level work performed under close supervision for positions that assist the Regional Traffic Marking and Signing team. Positions establish detour routes for routine and special signing; order special signs; and develop sign layouts for construction projects. Positions work with Sign Inventory Management System (SIMS).

**Planning Technician:** This allocation can be either entry or objective level work.

Objective level work is performed under general supervision for positions that perform field inventory work when such work accounts for greater than 50% of ones duties. Fieldwork is performed under general supervision. Positions may perform some combination of duties identified under the planning assistant allocation in the ETT advanced levels for access control, land use, the Six Year Highway Improvement Program, the State Trunk Highway Program or the Local Roads Program.

Entry level work is performed under close progressing to limited supervision for positions that perform duties described under the advanced allocations for planning assistant. At this level positions may be involved in verifications from cities and villages in reference to reimbursements under local roads and annexations as a result of greater urban growth in an area and projects are increasing in size and complexity from the previous level.

**Project Development Technician:** This is objective level work performed under general supervision for positions that perform work of a technical nature in assisting a project leader or project manager for medium size construction or design projects. The positions perform various construction inspection tasks; maintain appropriate diaries and records; maintain required project records and documentation; testing of materials; and represents the state in dealing with the public affected by the project. Duties in construction include directing foremen and superintendents of contractors, interpreting specifications and plans, directing inspectors, coordinating layout work, organizing staking crews, obtaining final measurements and may assist in computation of pay quantities. Duties in design included preparing or assisting in preparation of the project plan development and preparing and assisting in preparation of design investigation.

**Railroad Technician:** This is entry level work performed under close to limited supervision for positions functioning as a Railroad Technician in the field offices or central office. Both positions perform railroad specialist duties as identified in the ETT Advanced level allocations, however, work is performed on less complex, smaller projects, and/or does not include the full range of duties identified for the objective level.

**Senior Driller:** This is objective level work performed under general supervision. This position is similar to the previous level Driller; however, position will use a wider variety of drilling and sampling methods and may perform as a crew chief as assigned.

**Soils Technician:** This is objective level work for positions performed under general supervision in soils; provide engineering support and assistance for project development and maintenance related soils services; perform soils testing in a lab; perform subsurface investigations by staking locations for structure borings; setting and monitoring gauges and slope inclinometers; perform soils surveys to determine rock and marsh depths and their boundaries; and perform sampling of soils for analysis and pedological classification. In both areas these positions provide for maintenance, repair, testing, calibrations of equipment, and are involved in the review/verification of processes. Positions work in lab or in the field.

**Traffic/Data/Inventory Technician:** This is objective level work performed under general supervision. Data gathering coordination can take place within an assigned area, including several counties, and may involve staff of other local units of government. These positions work on the most complex assignments and major traffic situations including data gathering coordination and initial source methods training within complex urban areas and with cities under contract to perform major portions of the annual traffic program. Positions may also perform complex traffic counts independently without a higher level traffic technician. Employees may oversee the work of lower level technicians. At this level personnel may review and prepare CADDs summary maps for counts within assigned area.

**Utilities/Signs/Permits and Outdoor Advertising Technician:** This is a developmental level performed under limited to general supervision for positions responsible for technical activities related to utilities, permits, outdoor advertising, or some combination of these duties. Positions independently handle smaller, less complex projects in their entirety. Positions perform a combination of duties identified in

the ETT Advanced level allocations by assisting on medium to large projects and learning to independently coordinate projects.

## **ENGINEERING TECHNICIAN TRANSPORTATION ADVANCED**

This is developmental, objective or advanced level work within a technical engineering function. Work is performed under limited supervision for developmental level positions and general supervision for objective and advanced level positions and is very complex technical engineering related work. Work at this level differs from previous levels in complexity in work assigned, scope and size of projects, and independence of work.

Factors to be considered for determining size and complexity include, but are not limited to: dollar value of project; duration; number of bid items; number of jurisdictions involved; environmental; urban traffic flows; and historical/archeological or political sensitivity. Examples of duties performed at the Engineering Technician Transportation - Advanced level are listed below.

**Area/Roadway Maintenance Assistant:** This is developmental level work performed under limited to general supervision for positions that coordinate highway maintenance activities and assist the Regional Maintenance Supervisor and/or engineer in charge in the development, analysis and control of the regions state highway maintenance planning, budgeting, reporting and automation efforts. Positions perform work as described at the Advanced 2 level on assignments with moderate complexity, learning to handle the full range of complex county maintenance activities independently.

**Central Laboratory Specialist:** This is developmental level work performed under limited to general supervision for positions that direct a portion of the statewide assurance and acceptance testing of materials intended for use on WisDOT construction projects. These positions provide technical guidance and expertise for the materials used statewide to the regions and others. Positions perform duties related to the overall scheduling of the testing and ensuring proper testing procedures are in use. They are responsible for the verification of data, maintenance, and calibration of testing equipment and assist with the analysis of data and preparation of reports for special projects. They learn to direct and perform the required testing according to AASHTO, ASTM, or WisDOT test procedures in order to ensure the materials conformance to WisDOT specifications. The positions at this level begin to work with WisDOT, industry, FHWA, and others in the development of new specifications. They assist with programs such as the QMP for Asphaltic Pavements or the Certification Method of Acceptance for Asphaltic Cements. Some positions in this allocation may require Certification through the Highway Technician Certification Program at UW - Platteville.

**Driller Crew Chief:** This is objective level work performed under general supervision for positions that direct and train survey drill crew personnel by assigning work, enforcing safety, maintaining production, adhering to schedules and enforcing work rules. Position operates a wide variety of drills using several drilling methods. Specific duties include: locate soil boring sites from plans and sketches; use basic surveying techniques to lay out borings; make sketches showing existing physical and observed geological characteristics of boring area; contact the public on access; meet with media; contact utilities; install deep observation wells and surge and purge wells; take soil samples using the proper test method; classify soils; and operate pavement coring equipment to determine thickness of new concrete for compliance with project requirements. Employee has discretion to determine how the assignment is completed.

**Drilling Equipment Technician:** This is objective level work performed under general supervision for positions that construct and repair drilling equipment; coordinate and implement the planning, design, and fabrication of drill platforms, hydraulic systems, pneumatic systems, auxiliary drilling equipment and other specialized drilling equipment to meet geotechnical section subsurface exploration requirements;



direct and coordinate program of mechanical problem assessment repair and maintenance; and may serve as crew chief as assigned.

**Electrical Design Technician:** This is developmental level work performed under limited to general supervision for positions that are responsible for the design of complex traffic signal and intersection plans and prepares and/or reviews plans, specifications and estimates for traffic signal projects. Positions may also perform the following duties: issue traffic operating permits; coordinate statewide construction status maps; conduct traffic related studies, prepare reports, and recommendations; coordinate traffic accident billing; review and coordinate detour needs; answer public inquiries for detours and construction; review diggers hotline requests; evaluate field operations; and other complex technical duties related to traffic operations, traffic signals, and traffic data analysis.

**Freeway Operations Technician:** This is developmental level work performed under limited to general supervision for positions located in a major metropolitan area working in freeway operations. Positions assist with freeway traffic management by analyzing traffic volume patterns and anticipated diversion of traffic from data collected through freeway surveillance and information systems. Positions assist in disseminating traffic related information to enforcement agencies, the news media, and the general public and generate daily freeway operation activity reports and system performance reports; monitor ramp meter activities and recommend ramp metering rate; assist in determining emergency notification priorities and reporting major incidents and full freeway closures to regional duty officers; and may perform other duties similar to traffic specialist or marking and signing specialists.

**Marking and Signing Technician:** This is developmental level work performed under limited to general supervision for positions that assist the Regional Traffic Marking and Signing team in coordinating the marking and signing activities. Positions establish detour routes for routine and special signing; order special signs and work with the signing and marking asset management system; and perform sign layouts for construction projects. Frequent contacts with county highway departments, private citizens, and project development personnel may occur.

**Materials Technician and Laboratory Technician:** This is objective level work or developmental level work.

This is objective level work performed under general supervision for positions that perform a variety of duties related to materials. These positions inspect, provide oversight of sampling, testing and records for materials on the most complex construction projects, on multiple projects, and/or on statewide programs and initiatives. Positions provide training on field testing and inspection and may also perform duties as described at the advanced level for project development technician; **OR**

This is developmental level work performed under limited to general supervision for positions that administer laboratory activities in various materials sampling, testing, and inspection procedures. Positions also document and report test results, maintain inventory control of lab testing equipment, and calibrate and maintain lab testing equipment. In addition, this position may train other region personnel in material testing and sampling procedures.

**Photolog/Geolog Technician:** This is developmental level work performed under limited to general supervision for positions that operate the department's GeoLog/Data Collection System. Positions perform work as described in the Engineering Technician Transportation Advanced 2 allocation.

**Planning Assistant:** This is developmental level work performed under limited to general supervision for positions that provide technical engineering expertise in highway systems management, multi-modal planning, and transportation programming in one or more of the following areas: access control, land use, the Six Year. Highway Improvement Program, the State Trunk Highway Program, and the Local Roads

Program. Positions perform a combination of duties found under the Advanced 2 level on small to medium sized projects progressing to larger more complex assignments.

**Project Development Technician:** This is objective level work performed under general supervision for positions that perform work of a technical nature in assisting a project leader or project manager for large or complex construction or design projects. The positions perform various construction inspection tasks; maintain appropriate diaries and records; maintain required project records and documentation; testing of materials; and represents the state in dealing with the public affected by the project. Duties in construction include directing foremen and superintendents of contractors, interpreting specifications and plans, directing inspectors, coordinate layout work, organize staking crews, obtain final measurements and may assist in computation of pay quantities. Duties in design included preparing or assisting in preparation of the project plan development and preparing and assisting in preparation of design investigation. Positions may also perform project leader duties for small or less complex projects such as resurfaces.

**Railroad Technician:** This is developmental level work performed under limited to general supervision for positions functioning as a Railroad Technician in a field office or central office. Both positions perform railroad technician duties as identified in the ETT Advanced 2 level allocation, however, work is performed on less complex, smaller projects, and/or does not include the full range of duties identified for the objective level.

**Roadside Design Technician:** This is objective level work performed under general supervision for positions that perform a variety of complex technical engineering assignments in the area of roadside facilities development, maintenance, and operations. Positions assist in the operation and management of rest areas, waysides, truck scales, tourist information centers, scenic overlooks, and historical marker sites. These positions provide CADD expertise, create preliminary and final roadway site plans, prepare general notes, compute bid items, facilitate repairs to roadside facilities, review and approve invoices for repairs and maintenance to facilities, and serve as first point of contact for county highway departments and other DOT staff. Positions may also assist the pavement engineer in pavement maintenance activities.

**Utilities/Signs/Permits and Outdoor Advertising Technician:** This is objective level work performed under general supervision for positions that perform technical activities related to utilities, permits, outdoor advertising, or some combination of these. Positions allocated to this level coordinate utility relocation for less complex projects than found at the ETT Advanced 2 level. Positions review utility plans, develop agreements, prepare reports, draft special provisions language, check plans, review right-of-ways, and coordinate and assist with any functions related to utilities, permits, signs, outdoor advertising and other special programs such as driveway or maintenance permits, functioning as a member of a Regional work team.

## **ENGINEERING TECHNICIAN TRANSPORTATION ADVANCED 2**

This is a developmental, objective, or advanced level work within a technical engineering function. Work is performed under general supervision and is the most complex technical engineering work. Work at this level differs from previous levels in complexity of work assigned, scope and size of projects, and independence of work.

Factors to be considered for determining size and complexity include, but are not limited to: dollar value of project; duration; number of bid items; number of jurisdictions involved; environmental; urban traffic flows; and historical/archeological or political sensitivity. Examples of duties of positions at the Engineering Technician Transportation - Advanced 2 level are listed below.

**Airspace Management Technician:** This is objective level work for positions that evaluate airspace issues and administer the Wisconsin tall structures permit statute and administrative code for the preservation of airspace to allow for safe development of public air transportation. This position conducts evaluation of proposed construction of tall structures; develops technical engineering aspects of the structures; prepares exhibits and participates in airspace hearings; maintains information on seaplane activities; conducts obstruction evaluation training seminars; conducts airport inspections; and serves as a liaison with the Federal Aviation Administration Flight Procedures, National Aeronautical Charting Office and National Flight Data Center.

**Electrical Design Technician:** This is objective level work for positions that design highly complex traffic signal and intersection plans; operate, coordinate, monitor, and assign the work of the Region's Electrical Unit Micro-station PC; train others in the design procedures of traffic signal installation, programs, and operation of the Micro station PC; and prepare and/or review plans, specifications and estimates for traffic signal projects. Positions may also perform several of the following duties: issue traffic operating permits; coordinate statewide construction status maps; conduct traffic related studies and prepare reports and recommendations; coordinate traffic accident billing; review and coordinate detour needs; answer public inquiries for detours and construction; review diggers hotline requests; evaluate field operations; and other complex technical duties related to traffic operations, traffic signals, and traffic data analysis.

**Region Lab/Plant Technician:** This is objective level work for positions that are responsible for Regional laboratory and plant testing activities. These positions determine the acceptance or rejection of materials; certify and inspect concrete plant operations; direct the regions laboratory daily activities in materials sampling, testing, & inspection procedures; coordinate activities with the Central Office Materials Laboratory; train region and consultant staff in materials acceptance testing, data entry, and proper methods of sampling and testing of materials incorporated in the construction of highways and related facilities; report the results of all tests, inspections, and calibrations to project and process control personnel; maintain an inventory control of all field and lab testing equipment; coordinate and observe the inspection of commercial ready-mix concrete plants; and coordinate and observe the inspection and review of manufacturing and fabrication plants in the region.

**Regional Project Development PS&E and Bid Letting Coordinator:** This is objective level work for positions that function as the project development plans, specifications, and estimates (PS&E's) submittal coordinator for a regional office including consultant PS&E's. Positions manage the regional schedule for submittal to central office; communicate dates and deadlines and maintain logs; serve as the regional expert on developing estimates; conduct initial review of submittals; possess detailed knowledge of bid letting process; and develop, update and maintain guidelines, instructions and forms for PS&E submittals. Positions must provide technical engineering knowledge to the process and initiate review of all engineering aspects of the PS&E process. Positions may also perform other high level technical engineering assignments for the region such as, but not limited to, functioning as an Estimator/Transport System Administrator, developing Municipal Agreements, administering state funds for improvement projects, and any other duties identified in allocations at the ETT Advanced 2 level.

**Central Office Marking and/or Signing Coordinator:** This is objective level work for positions that coordinate program production services and major maintenance with regions for the pavement marking and signing functions. Positions review, evaluate, recommend revisions, and implement policies, standards and procedures to guide and provide traffic engineering field services, and guide procurement and distribution of highway signs and other traffic control devices and systems including but not limited to rebuild and construct marking and signing equipment; review statewide programs for centerline and edge line markings; produce monthly, annual, and fiscal reports of pavement marking or signing activities and products; lay out and coordinate with the testing laboratory the paint test line program for various traffic paints; direct No Passing Zone Crews; and inspect and service signing equipment.

**Plans and Estimate Technician:** This is objective level work for positions that coordinate and assist with processing of PS&E documents; make initial reviews and separation of documents and problem identification; manage and maintain integrity of letting information data bases; manage the TRANS PORT/PES System; maintain microfilm plan records, provide interpretation and records as requested by regions and external customers; possess comprehensive knowledge of bid item use and bid letting process to ensure proper plan development and coordination with plan review.

**Freeway Operations Technician:** This is objective level work for positions located in a major metropolitan area working in freeway operations. Positions determine freeway traffic management strategies by analyzing traffic volume patterns and anticipated diversion of traffic from data collected through freeway surveillance and information systems. Positions manage the dissemination of traffic related information to enforcement agencies, the news media, and the public and generate daily freeway operation activity reports and system performance reports. Positions monitor ramp meter activities and recommend ramp metering rate; determine emergency notification priorities and report major incidents and full freeway closures to regional duty officers; and may perform other duties similar to traffic coordinator or marking and signing coordinator.

**Marking and Signing Technician:** This is the objective level for positions that assist the Regional Traffic Marking and Signing team in coordinating the regions marking and signing activities. Positions administer and coordinate contracts; identify and prioritize marking and/or signing activities for the region; coordinate with and review signing and marking activities performed by counties and contractors; and manage and implement let and non-let sign installations and modifications and/or pavement marking projects including preparation of PS&E's. Positions provide high-level technical expertise and may have responsibility for managing consultant activities. Positions ensure data integrity, timeliness and accuracy. Increased frequency and sensitivity of contacts with county highway departments, private citizens, and project development personnel occur at this level. Positions also train county highway department personnel and provide oversight for signing activities.

**Photolog/Geolog Technician:** This is objective level work for positions that operate the department's GeoLog/Data Collection System. Positions operate the GeoLog vehicle throughout the state gathering data and information. Positions analyze weather conditions, sun angles, traffic characteristics and geographic locations; edit data and analyze output; synchronize data sets with current media; edit digital video; format and interface information; and perform calibration and maintenance. Positions also provide liaison and problem solving to regions in the use of tools required; works with special software and various computer operating systems; develops materials and collection of special needs from user community in preparation for on-road photolog image collection.

**Planning Assistant:** This is objective level work for positions that are responsible for providing technical engineering expertise in highway systems management, multi-modal planning, and transportation programming in a variety of multi-modal programs. Positions assemble existing highway related data for use in corridor analysis and direct and/or prepare exhibits for hearings, public meetings, and reports; coordinate and direct the region travel data program; coordinate and perform transportation corridor studies and special travel studies; provide and/or maintain the current, accurate, and complete state trunk highway inventory databases; maintain the highway performance monitoring system (HPMS) files; coordinate and complete the biennial local road and/or forest road certification and inventory program(s) to include the maintenance of local road plat maps and database; making regular contact with local units of government, other agencies, business interests, the news media, and the general public to respond to inquiries and to provide relevant program information; coordinate and/or serve as a resource in the organization of engineering automated mapping operations; provide technical support for statewide training/consultation on the various transportation data systems and mapping;; oversee contract change orders/overruns and non-let projects for the six year state highway improvement subprograms, the regional local programs, and other transportation programs; compute entitlements and prepare obligation records, entitlement balance, and program requests for the development of the regional local programs;

and may assist in the implementation and management of emergency flood relief programs, transportation alternatives programs, transportation enhancement programs and other related programs.

**Railroad Coordinator (Including Central Office Rail Technician):** This is objective level work for positions functioning as a Railroad Coordinator in a region or a central office Rails Coordinator. Regional positions function as liaison with the Central Office and railroad companies on highway-railroad matters, Transportation Economic Assistance (TEA) railroad projects involving railroad track construction and track rehabilitation. These positions coordinate highway-railroad activities on highway improvement projects involving grade crossing and signals, grade separations, encroachments and land interests on railroad property and railroad improvement projects on the State rail system. Positions may advise and assist local officials on local projects; contacts include other Regions, consultants, utility companies, contractors, and the public; administer all regional railroad construction contracts; enforce contract plans and specification requirements; and review processes and approve all applications for permits to work in or occupy State-owned railroad rights of way. In some Regions, this position may assist a Civil Engineer Regional Rail Coordinator when work volume or complexity requires additional support and expertise. In the central office this position develops and modifies computer applications for the Railroad Status Information System; conducts various railroad field investigations; administers project set-up and scheduling of Commissioner ordered rail projects; and manages the statewide crossing improvement projects.

**Roadside Design Technician:** This is objective level work performed under general supervision for positions that perform a variety of complex technical engineering assignments in the area of roadside facilities development, maintenance, and operations. Positions assist in the operation and management of rest areas, waysides, truck scales, tourist information centers, scenic overlooks, and historical marker sites. These positions provide CADD expertise, create preliminary and final roadway site plans, prepare general notes, compute bid items, facilitate repairs to roadside facilities, review and approve invoices for repairs and maintenance to facilities, and serve as first point of contact for county highway departments and other DOT staff. Positions may also assist the pavement engineer in pavement maintenance activities.

**Soils Technician:** This is objective level work for positions that assist the Regional Soils Engineer in the full range of activities related to the scheduling, testing, and reporting of soils information. Positions schedule soil boring activities, assemble soil related information, prepare soil reports, and maintain soil records. Positions evaluate and monitor soil conditions during construction and maintenance of transportation facilities.

**Transport/PES Assistant:** This is objective level work for positions in the Bureau of Highway Construction that assists in the management of the AASHTO Transport/PES System. Position also performs work identified in the plans and estimate technician allocation and performs various complex technical engineering tasks on a central office basis. Duties include but are not limited to: maintain databases and data integrity, generate reports, coordinate activities between bureaus and divisions, convert microfilm to CD, and review engineering estimates, etc.

**Utilities/Signs/Permits and Outdoor Advertising Technician:** This is objective level work for positions that perform highly technical activities related to utilities, permits (including maintenance, driveways, traffic, oversize/overweight and other related programs), outdoor advertising, or some combination of these duties. Positions allocated to this level develop and review the most complex utility company relocation plans; review and process the administration of utility construction contracts including negotiations; and/or reviewing and processing of utilities permits associated with Federal Highway or State Trunk Highway right of ways. Positions perform field reviews of contractual work and/or review in-house consultant designed roadway plans for compliance with utility need and verify status of utility commitments. Positions may function as a member of a Regional Utility work team. Some positions have responsibility for the Outdoor Advertising sign permit program for a Region. These

positions review, approve, and process outdoor advertising sign permit applications; may perform surveillance of highways for conformance to sign requirements; or serve as a public contact for questions and complaints regarding permit issues.

### **III. QUALIFICATIONS**

The qualifications required for these positions will be determined at the time of recruitment. Such determinations will be made based on an analysis of the goals and worker activities performed and by an identification of the education, training, work or other life experience which would provide reasonable assurance that the knowledge and skills required upon appointment have been acquired. Some positions such as drillers and traffic signal technicians require incumbents to possess a Commercial Driver's license with tanker and air brake endorsements. These requirements, and any others, will be stated at the time of recruitment.

### **IV. ADMINISTRATIVE INFORMATION**

This classification series was created effective May 21, 2000, and announced in Bulletin CLR/SC-112, in order to identify positions located at the Department of Transportation that perform sub-technical to technical engineering work. This classification series was modified effective July 13, 2003 and announced in bulletin MRS-SC-164 as a result of a Wisconsin Employment Relations Commission decision. The modification included the addition of the Advanced 2 level. This classification was modified effective May 14, 2006 and announced in Bulletin OSER-0093-MRS/SC, to reflect organizational changes in the Department of Transportation that created regions, and to add lower level allocations, and modify higher level ones, to accurately reflect work being performed by employees working in utilities, signing, and other permitting areas. The classification was modified effective December 6, 2009, and announced in Bulletin OSER-0260-CLR/SC, to reflect the use of the classification by the Department of Civil and Environmental Engineering at the UW-Madison.

This specification was again modified effective June 28, 2015 and announced in bulletin OSER-0396-CC/SC to remove allocations of work no longer being performed by the Department of Transportation or that was determined to be better identified as Engineering Specialist Transportation, a new level classification created at the same time, and to update allocations to reflect current work being performed by the Department.

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